Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L7	236	623/17.11-17.16.ccls. and ($3resorb$4 or $3absorb$4 or $3degrade$4) same (screw or pin or rod or plate)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/06/23 17:16
L8	95	623/17.11-17.16.ccls. and ($3resorb$4 or $3absorb$4 or $3degrade$4) with (screw or pin or rod or plate)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/06/23 17:17
L9	63	623/17.11-17.16.ccls. and ($3resorb$4 or $3absorb$4 or $3degrade$4) with (screw or pin)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/06/23 17:17
L10	38	("4349921" | "4599086" | "4627853" | "4892545" | "4946378" | "5011484" | "5053049" | "5092866" | "5092877" | "5180393" | "5423816" | "5458641" | "5562738" | "5591235" | "5609634" | "5674296" | "5681310" | "5702449" | "5713899" | "5725582" | "5776196" | "5899939" | "5916267" | "5989289" | "6001130" | "6066175" | "6090998" | "6093205" | "6096081" | "6106527" | "6120503" | "6136001" | "6156037" | "6190388" | "6206882" | "6235059" | "6306170" | "6325827").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/06/23 17:44
L11	36	("4599086" | "4627853" | "4892545" | "4946378" | "5011484" | "5053049" | "5092866" | "5092887" | "5180393" | "5423816" | "5458641" | "5562738" | "5591235" | "5609634" | "5674296" | "5681310" | "5713899" | "5725582" | "5899939" | "5916267" | "5989289" | "6001130" | "6066175" | "6090998" | "6093205" | "6096081" | "6106527" | "6120503" | "6136001" | "6156037" | "6190388" | "6206882" | "6206922" | "6235059" | "6306170" | "6325827").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/06/23 17:51

L12	36	("4599086" | "4627853" | "4892545" | "4946378" | "5011484" | "5053049" | "5092866" | "5092887" | "5180393" | "5423816" | "5458641" | "5562738" | "5591235" | "5609634" | "5674296" | "5681310" | "5713899" | "5725582" | "5899939" | "5916267" | "5989289" | "6001130" | "6066175" | "6090998" | "6093205" | "6096081" | "6106527" | "6120503" | "6136001" | "6156037" | "6190388" | "6206882" | "6206922" | "6235059" | "6306170" | "6325827").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/06/23 17:53
L13	33	("3463158" | "3710789" | "4570623" | "4820305" | "5084051" | "5102421" | "5108395" | "5156616" | "5344421" | "5346492" | "5443483" | "5527311").PN. OR ("5681310").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/06/23 17:53

DOCUMENT-IDENTIFIER: US 20020107571 A1

TITLE: Spinal bone implant

---------- KWIC ---------

Current US Classification, US Primary Class/Subclass - CCPR (1):
623/17.11

Detail Description Paragraph - DETX (5):
[0021] Body portion 12 of implant 10 has a cavity 18 which is preferably derived from the intermedullary canal of the bone from which implant 10 is obtained by a cross-cut across the diaphysis of a fibula, femur or like long bone. Cavity 18 provides an area to receive material that promotes bony incorporation and fusion. Prior to positioning body portion 12 into the disc space, bone growth promoting material 28 may be positioned in cavity 18 to encourage bone growth into and through body portion 12. Bone growth material can be any type of material known in the art. As shown further in FIG. 2, upper flange member 14 includes a first fastener bore 20 for receiving a first fastener 24 and lower flange member 16 has a second fastener bore 22 for receiving a second fastener 26. The fasteners of the present invention can be in the form of a threaded **screw** and made from metal, bone, polymer, bio-**absorbable** material, or other material known in the art.

DOCUMENT-IDENTIFIER: US 20020138143 A1

TITLE: Cortical bone cervical Smith-Robinson fusion implant

---------- KWIC ---------

Current US Classification, US Primary Class/Subclass - CCPR (1):
623/17.11

Detail Description Paragraph - DETX (7):
[0027] We have discovered that in the above-described manner, cortical bone implants may be fashioned having heights, widths and lengths which are practically useful in the Smith-Robinson cervical fusion method. According to this method, the height of the implant is only limited by the distance from the exterior of the bone diaphysis to the intramedullary canal. However, we have discovered that, by this method, final implant heights from about 7 mm to about 14 mm may be produced, depending on the choice of bone source and the location on the bone from which the bone plug is cored. Since it is extremely rare for the cervical intervertebral space to extend beyond these limits, this method is therefore capable of supplying implants of required or useful heights. Likewise, the length and width of the implant are defined by the diameter of the core-cutter, and final lengths and widths of between about 7 and 14 mm are easily provided for by this method. In addition, where the need arises for heights between about 10 mm and 14 mm, or if difficulty is experienced in obtaining donor bone having a sufficient width from the exterior of the bone to the intra-medullary canal to provide such heights, alternate methods of producing the implant of desired heights disclosed herein may be employed. For example, in a first such alternate method, implants of this invention are

produced and then stacked to provide a unitary implant of the desired height
dimensions. Such stacked implants may be maintained in a unitary association
by drilling appropriate holes through the height of the implant, and inserting
therein appropriate retention **pins** made from any desirable material, including
cortical bone, **bioabsorbable** synthetic polymer, titanium or other metallic
retention **pins**. Alternatively, the stacked implants may be retained in a
unitary association by means of a plug of cancellous bone, hydroxyapatite or
other biocompatible, osteoconductive or osteoinductive material, and press-fitting the stacked implants to achieve the desired height (see FIG. 9).
In a further alternate method, a section of cortical bone along the long axis
of a long bone may be machined according to methods known in the art. By then
further shaping and cutting appropriate heights in such cortical bone, and
bringing halves of the implant into juxtaposition with each other, implants of
any desired shape and height are produced. In yet a further alternate
procedure, (see FIGS. 10-17), unitary implants of this invention of essentially unlimited height are produced by length-wise sectioning the
anterior margin of the tibia or linea aspera of the femur, segmenting the
substantially triangular cortical bone to desired heights, drilling a cannulation through the segments thus produced, and finally shaping the
implants to desired dimensions, as defined below for the first principal method
of making the implant of this invention.

Detail Description Paragraph - DETX (30):
[0048] In FIG. 7, there is shown a further aspect of this invention in which
an implant, either machined as described above, or prior to said machining, is
further machined so as to allow stacking thereof to achieve implants of various
heights. Commencing from a blank cortical plug at the stage shown in FIG. 2D
has the advantage that if breakage of the implant occurs during machining, this

will likely occur prior to completion of all of machining steps. According to
this embodiment of the invention, two implant blanks of known height are
selected such that a unitary implant composed of both starting implants can be
produced of a new desired height (e.g. a 6 mm high implant may be stacked with
a 7 mm high implant to produce a 13 mm implant). Each implant blank is placed
in a drill jig, and by means of a drill press or like means, holes are drilled
through the implants. With the implants still in the jig, the jig is placed on
the table of an arbor press. **Pins,** composed of cortical bone, **resorbable** but
strong biocompatible synthetic material, or metallic **pins** of the appropriate
diameter are then impelled into the holes in the implants such that the
implants are formed into a unitary body by these **pins**. In order to encourage
bony ingrowth, channels may be cut into the adjacent surfaces of the implants.
The embodiment shown in FIG. 7A is a top view of an implant 700 into which four
holes 701-704 have been drilled. In FIG. 7B, there is shown the juxtaposition
of two implants 700A and 700B, with the drilled holes 701-704 in register to
receive pins for maintaining the implants in register. In this view, the
adjacent surfaces 710A and 710B have not been inscribed with teeth, while the
surfaces 711A and 711B have been so inscribed. Based on this
disclosure, those
skilled in the art will recognize that a number of variations and modifications
may be made to stack various forms of bone implants, or to maintain such
implants in register with each other. These modifications are to be considered
within the scope of this invention. Thus, as shown in FIG. 9, an implant 900
is produced by producing two implants 901 and 902, each having a cavity or
canal 903, including an asymmetric key way 904 machined therein. By
press-fitting the two implants together using an appropriately shaped
cancellous plug 905 or a plug made from another biocompatible material,

including but not limited to hydroxyapatite, cortical bone, synthetic materials, ceramic, optionally treated with growth factors such as bone
morphogenetic protein and the like, the two implants 901 and 902 are retained
in registered juxtaposition to form the implant 900.

DOCUMENT-IDENTIFIER: US 20030078668 A1

TITLE: Interbody spinal fusion implants with single-lock for
locking opposed screws

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Current US Classification, US Primary Class/Subclass - CCPR (1):
623/17.16

Current US Classification, US Secondary Class/Subclass - CCSR (2):
623/17.11

Claims Text - CLTX (28):
27. The apparatus of claim 1, wherein said bone **screw** is at least in part
made of a **resorbable** material.

DOCUMENT-IDENTIFIER: US 20020107572 A1

TITLE: Spinal implant with attached ligament

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Current US Classification, US Primary Class/Subclass - CCPR (1):
623/17.11

Detail Description Paragraph - DETX (5):
[0022] Referring further to FIG. 2, flexible ligament 14 is secured to body portion 12 between the endplates of the adjacent vertebrae. Ligament 14 has an upper ligament portion 15 that extends in the superior direction along at least a portion of upper vertebral body V1. Flexible ligament 14 also includes a lower ligament portion 16 that extends in the inferior direction along at least a portion of the height of lower vertebral body V2. It is also contemplated that upper portion 15 can extend superiorly to the vertebral body positioned above vertebral body VI, and that lower portion 16 can extend inferiorly to the vertebral body positioned below vertebral body V2. Although upper portion 15 and lower portion 16 are illustrated as having a rectangular shape, other shapes for ligament 14 are also contemplated, such as triangular, square, circular, and other multi-sided and curved shapes. Upper portion 15 can have a first fastener bore 20 for receiving a first fastener 24 and lower portion 16 can have a second fastener bore 22 for receiving a second fastener 26. The fasteners of the present invention can be in the form of a threaded **screw** and made from metal, bone, polymer, bio-**absorbable or resorbable** material, or other material known in the art.